

C L A I M S

1. Method of preparation of a fungal glucane hydrogel having antibacterial and immunostimulant activity by alkaline deproteination and subsequent elimination of water-soluble components, characterized in that the obtained insoluble glucan is subsequently hydrated by wet grinding at a rotational speed of 3000 to 9000 rpm for 10 to 20 min. to a swelling volume in water of 50 to 500 ml/g, and finally it is adjusted by heat sterilization at a temperature of 90 to 110 °C for 20 to 30 min., what results in a gel which is formed by fungal polysaccharide with the β -(1,3)-D-bond in the principal chain, with a concentration of 0.5 to 3 % by weight.
2. Method according to claim 1, characterized in that the insoluble glucan is prepared from fruiting bodies of oyster mushroom (*Pleurotus ostreatus*).
3. Method according to claims 1 and 2, characterized in that the resulting gel is formed by fungal polysaccharide with the β -(1,3)-D-bond branched at every fourth anhydroglucose unit.
4. Method according to claims 1 to 3, characterized in that the resulting fungal glucane hydrogel is chemically sterilized by addition of 0.02 % of benzoic acid.
5. Use of fungal glucane hydrogel according to preceding claims for preparation of cosmetical, pharmaceutical and foodstuff products.